

#9

OCR-729/756

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

John L. Wood, *et al.*

Serial No.: 09/482,235

Filed: January 13, 2000

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Group Art Unit 1624

Examiner: B.L. Coleman

For: GLYCOSYLATED INDOLOCARBAZOLE SYNTHESIS

DECLARATION UNDER 37 C.F.R. § 1.132

I, JOHN L. WOOD, hereby declare as follows:

I have a B.A. degree from the University of Colorado and a Ph.D. from the University of Pennsylvania. After doing postdoctoral work at Harvard, I joined the faculty of Yale University in the Chemistry Department, and am now a full professor. I have been engaged in chemical research for the past 20 years. A copy of my C.V. is attached hereto.

I am a named co-inventor inventor of the above-denominated U.S. patent application serial number 09,482,235, which is a divisional of Ser. No. 09/206,082, which issued as U.S. Pat. No. 6,037,468. Both claim benefit of priority applications provisional U.S. Ser. No. 60/002,164, filed August 11, 1995, and PCT/IB96/00987, filed internationally on August 9, 1996. I was primary investigator of the research summarized therein and published in a number of papers related to glycosylated indolocarbazole synthesis disclosed in the application, including the 1995 *J. Amer. Chem. Soc.* paper describing the total synthesis of (+) and (-)-K252a (117: 10413-10414), the text and spectra of which are set out in the above-mentioned provisional.

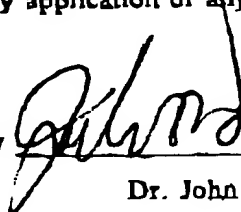
I submit this Declaration in connection with an raised by the Examiner in a Patent Office Action dated March 20, 2002. In it, the Examiner took the position that the 1995 *J. Amer. Chem. Soc.* paper and a *Tetrahedron Lett.* paper the following year (37: 7335-7336) were prior art against the claims of this application. But the claims are directed to preparations of glycosylated products described by the genus set out in the claims, which bear substituents of any number and combination of the elements H, C, N, S, Si, O, Cl, Br, I, and F as set out in the published international application. A person skilled in my field would know that these substituents represent any alkyl, aryl, alicyclic, or heterocyclic group containing those elements because these are typical in this class of compounds. I drafted the description of the R groups to describe the reaction to others in the field. It is the reaction of an indolocarbazole with an acetal that is the invention, as the strategy represents a new synthetic approach to the synthesis of these biologically important natural products. There is clear support in the papers and in the applications to provide guidance to a skilled worker on how to reproduce the claimed carbenoid-mediated synthesis, and use the scheme to prepare other analogues bearing other substituents simply by choosing different reactants. It is my opinion that the disclosures give clear instructions to chemists about how to follow this approach using standard chemical techniques.

Therefore, it is my opinion that the reference does not disclose or suggest the ring expansion that I claim, and that the above-mentioned application is original and a contribution to the field of alkaloid chemistry.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on my information and belief are believed to be true; further that these statements were made with the knowledge that willful and false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of my application or any patent issued thereon.

Dated: June 10, 2002

by



Dr. John L. Wood

John L. Wood

Education and Employment

1998-Present Professor of Chemistry, Yale University
1997-1998 Associate Professor of Chemistry (non tenured), Yale University
1993-1997 Assistant Professor of Chemistry, Yale University
1991-1993 American Cancer Society Postdoctoral Fellow, Harvard University
1985-1991 Ph.D., Organic Chemistry, University of Pennsylvania, Philadelphia, PA.
1980-1985 B.A., Chemistry, University of Colorado, Boulder, CO.

Honors and Awards

Kitasato Microbial Chemistry Medal 2001
Merck Faculty Award 2000, 2001
Yamanouchi USA Faculty Award 1998, 1999, 2000, 2001
Zeneca Excellence in Chemistry Award 1998
Bristol-Myers Squibb Foundation Research Award 1998-2001
Dreyfus Teacher Scholar Award 1998
Alfred P. Sloan Foundation Fellow 1997
Pfizer Research Award 1997-2001
Novartis Chemistry Lectureship 1997-1998
Parke-Davis Distinguished Michigan Lecturer 1997
Bristol-Myers Squibb Research Award 1997
Glaxo-Wellcome Young Chemistry Scholar Award 1996-1998
Eli Lilly Young Faculty Award 1996-1997
Invited Visiting Professor, University of Auckland New Zealand 1997
Invited Guest Editor, Tetrahedron Symposium in Print on Synthetic Methods V 1997
NSF CAREER award 1996-2000
Yale University, Junior Faculty Fellowship, 1996-1997
American Cancer Society, Junior Faculty Award 1994
Camille and Henry Dreyfus New Faculty Award 1993
American Cancer Society Postdoctoral Fellowship 1991-1993
National Institutes of Health Postdoctoral Fellowship 1991-1993 (declined)
University of Pennsylvania Dean's Dissertation Fellowship 1989-1990
Distinguished Organic Chemistry Teaching Award 1986
B. A. in chemistry, *Summa Cum Laude* in Chemistry, 1985

Professional Service:

Associate Editor for the Americas: *Tetrahedron Letters* 2001-present
Consultant: Wyeth-Ayerst 2000-present
Consultant: Eli Lilly: 2000-2001
American Cancer Society, External Grants Review Panel, ad hoc, 1997
NSF CAREER award referee 1997, 1998, 1999

NIH Study Section, ad hoc, Med. Chem. A, 1999

American Cancer Society, External Grants Review Panel, member, 1999

Beckman Foundation, Beckman Scholars Review Panel 1999.

Publications From Independent Career, Yale University

48. "Reactive Dienes: Intramolecular Aromatic Oxidation of 3-(2-Hydroxyphenyl)-propionic Acids" Ioana Drutu, Jón T. Njardarson, John L. Wood *Organic Letters*, 2002, 4, In Press.
47. "An Expeditious Approach Toward the Total Synthesis of CP-263,114" Jon Njardarson, Ivar MacDonald, David Spiegel, Munenori Inoue, John L. Wood *Organic Letters*, 2001, 3, 2435.
46. "Evolution of a Synthetic Approach to CP-263,114" Jon Njardarson and John L. Wood *Organic Letters* 2001, 3, 2431.
45. "Efficient Syntheses of Novel C2'-Alkylated (\pm)-K252a Analogs" Kazuhiko Tamaki, J. Brad Shotwell, Ryan D. White, Ioana Drutu, Dejah T. Petsch, Thao V. Nheu, Hong He, Yumiko Hirokawa, Hiroshi Maruta, and John L. Wood *Organic Letters* 2001, 3, 1689.
44. "Progress Towards the Total Synthesis of Ingenol: Construction of the Complete Carbocyclic Skeleton" Heifeng Tang, Naeem Yussuf, John L. Wood *Organic Letters* 2001, 3, 1563.
43. "Progress Toward the Total Synthesis of Kalihinane Diterpenoids" Ryan D. White and John L. Wood. *Organic Letters* 2001, 3, 1825.
42. "Catalyst-based Control of [2,3] and [3,3] Rearrangement in α -Diazoketone-derived Propargyloxy Enols" George A. Moniz and John L. Wood *J. Am. Chem. Soc.* 2001, 123, 5095.
41. "Reactive Enols in Synthesis 2: An Efficient Total Synthesis of (+)-Latifolic Acid and (+)-Latifoline" Ioana Drutu, Evan Grabowski, John L. Wood *J. Org. Chem.* 2001, 66, 7025.
40. "Total Synthesis of Epoxysorbicillino" Brian D. Thompson, Naeem Yusuff, and Derek A. Pflum *J. Am. Chem. Soc.* 2001, 123, 2097.
39. "A Chemical Switch for Inhibitor-Sensitive Alleles of Any Protein Kinase" Anthony C. Bishop, Jeffrey A. Ubersax, Dejah T. Petsch, Dina P. Matheos, Nathanael S. Gray, Justin Blethrow, Eiji Shimizu, Joe Z. Tsien, Peter G. Schultz, Mark D. Rose, John L. Wood, David O. Morgan, and Kevan M. Shokat *Nature*, 2000, 407, 395.
38. "Efficient Stereoselective Syntheses of Isopanepoxydone and Panepoxydone: A Re-Assignment of Relative Stereochemistry" J. Brad Shotwell, Shaojing Hu, Eva Medina, Megumi Abe, Roger Cole, Craig M. Crews, and John L. Wood *Tetrahedron Lett.* 2000, 41, 9639.
37. "Synthesis of C(3) Benzofuran-Derived Bis-Aryl Quaternary Centers: Approaches to Diazonamide A" Douglas E. Fuerst, Brian M. Stoltz, John L. Wood *Organic Letters* 2000, 2, 3521.
36. "Total Synthesis and Protein Kinase Activity of C(7) Methyl Derivatives of K252a" John L. Wood, Dejah T. Petsch, Brian M. Stoltz, Elizabeth M. Hawkins Daniel Elbaum, David R. Stover *Synthesis* 1999, 1529.
35. "Rhodium Carbenoid-Initiated Claisen Rearrangement: Scope and Mechanistic Observations" John L. Wood and George A. Moniz *Organic Letters* 1999, 1, 371.
34. "Application of Reactive Enols in Synthesis: A Versatile, Efficient and Stereoselective Construction of the Welwitindolinone Carbon Skeleton" John L. Wood, Alexandra A. Holubec, Brian M. Stoltz, Matthew M. Weiss, Julie A. Dixon, Brian D. Doan, Mohammed F. Sharnji, Jennifer M. Chen, and Timothy P. Heffron *J. Am. Chem. Soc.* 1999, 121 6326.
33. "Development of a Rhodium Carbenoid-Initiated Claisen Rearrangement for the Enanti selective Synthesis of α -Hydroxy Carbonyl Compounds" John L. Wood, George A. Moniz, Derek A. Pflum, Brian M. Stoltz, Alexandra A. Holubec, and Hans-Juergen Dietrich *J. Am. Chem. Soc.* 1999, 121 1748.

32. "Design and Implementation of an Efficient Synthetic Approach to Pyranosylated Indolocarbazoles: Total Synthesis of (+)-RK286c, (+)-MLR-52, (+)-Staurosporine, and (-)-TAN-1030a" John L. Wood, Brian M. Stoltz, Steven N. Goodman, Kenolisa Onwueme *J. Am. Chem. Soc.* **1997**, *119*, 9652.
31. "Design and Implementation of an Efficient Synthetic Approach to Furanosylated Indolocarbazoles: Total Synthesis of (+)- and (-)-K252a" John L. Wood, Brian M. Stoltz, Hans-Juergen Dietrich, Derek A. Pflum, and Dejah T. Pelsch *J. Am. Chem. Soc.* **1997**, *119*, 9641.
30. "An Approach to Chiral Tri-Substituted Olefins: Synthesis of the C(1)-C(7) Segment of Halichomycin" Erin E. McCann, Glenn Janes, Craig Ortsey, and John L. Wood *Tetrahedron Letters* **1997**, *38*, 303.
29. "Glycosylated Indolocarbazole Synthesis" John L. Wood, Brian M. Stoltz, Hans-Jürgen Dietrich, Derek Pflum International Patent Application Publication Number WO 97/07081
28. "The Total Synthesis of (+)-RK-286c, (+)-MLR-52, (+)-Staurosporine, and (+)-K252a." John L. Wood, Brian M. Stoltz, Steven N. Goodman *J. Am. Chem. Soc.* **1996**, *118*, 10656.
27. "The Synthesis of Desamido Analogs of Staurosporine, RK-286c, and TAN-1030a." John L. Wood, Brian M. Stoltz, Kenolisa Onwueme, and Steven N. Goodman *Tetrahedron Lett.* **1996**, *37*, 7335.
26. "The Stereoselective Ring Contraction of a Pyranosylated Indolocarbazole. A Biosynthetic Link Between K252a and Staurosporine?" Brian M. Stoltz; John L. Wood *Tetrahedron Lett.* **1996**, *37*, 3929.
25. "A Ring Expansion Approach to Pyranosylated Indolocarbazoles" Brian M. Stoltz and John L. Wood *Tetrahedron Lett.* **1995**, *36*, 8543.
24. "The Total Synthesis of (+)- and (-)-K252a" John L. Wood, Brian M. Stoltz, and Hans-Jürgen Dietrich *J. Am. Chem. Soc.* **1995**, *117*, 10,413.
23. "The Total Syntheses of (+)- and (-)-Syringolides 1 and 2" John L. Wood, Susan Jeong, Annalee Salcedo, and Jonathan Jenkins *J. Org. Chem.* **1995**, *60*, 286

Publications From Postdoctoral Work, Harvard University

22. "Total Syntheses of Di- and Tri-O-Methyl Dynamycin A Methyl Esters" Jack Taunton, John L. Wood, and Stuart L. Schreiber *J. Am. Chem. Soc.* **1993**, *115*, 10378.
21. "Application of the Allylic Diazene Rearrangement: Synthesis of the Enediyne-Bridged Tricyclic Core of Dynamycin A" John L. Wood, John A. Porco, Jr., Jack Taunton, Angela Y. Lee, Jon Clardy, and Stuart L. Schreiber *J. Am. Chem. Soc.* **1992**, *114*, 5898.

Publications From Graduate Work, University of Pennsylvania

20. "Pyrrolinone-Based Peptidomimetics" Ralph Hirschmann, Amos B. Smith, III, Paul Sprengeler, Ryan C. Holcomb, Terence Keenan, John L. Wood, Mark Guzman, Alexander Pasternak U.S. Patent 5,770,732.
19. "(+)-Trienomycins A, B, C, and F and (+)-Mycotrienins I and II: Relative and Absolute Stereochemistry" Amos B. Smith, III, John L. Wood, Weichyun Wong, Alexandra E. Gould, Carmelo J. Rizzo, Joseph Barbosa, Kanki Komiyama, Satoshi Omura *J. Am. Chem. Soc.* **1996**, *118*, 8308.
18. "Total Synthesis of (+)-Trienomycins A and F via a Unified Strategy" Amos B. Smith, III, Joseph Barbosa, Weichyun Wong, John L. Wood *J. Am. Chem. Soc.* **1996**, *118*, 8317.
17. "Pyrrolinone-Based Compounds" Ralph Hirschmann, Amos B. Smith, III, Paul Sprengeler, Ryan C. Holcomb, Terence Keenan, John L. Wood, Mark Guzman U.S. Patent 5,489,692.
16. "Total Synthesis of (+)-Trienomycins A and F" Amos B. Smith III, Joseph Barbosa, Weichyun Wong, and John L. Wood *J. Am. Chem. Soc.* **1995**, *117*, 10,777.
15. "Design and Synthesis of Nonpeptide Peptide mimetic Inhibitors of Renin" Amos B. Smith, III, Ryouichi Akaishi, David R. Jones, Terence P. Keenan, Mark C. Guzman, Ryan C. Holcomb, Paul A. Sprengler, John L. Wood, Ralph Hirschmann, M. Katherine Holloway *Biopolymers (Peptide Science)* **1995**, *37*, 29.

14. "General Photoisomerization Approach to *trans*-Benzobicyclo-[5.1.0]octenes: Synthetic and Mechanistic Studies" Amos B. Smith, III, John L. Wood, Terence P. Keenan, Nigel Liverton, and Melean Visnick *J. Org. Chem.* 1994, 59, 6652.
13. "De Novo Design, Synthesis, and X-ray Crystal Structures of Pyrrolinone-Based β -Strand Peptidomimetics" Amos B. Smith, III, Mark C. Guzman, Paul A. Sprengeler, Terence P. Keenan, Ryan C. Holcomb, John L. Wood, Patrick J. Carroll, and Ralph Hirschmann *J. Am. Chem. Soc.* 1994, 116, 9947.
12. "The Design, Synthesis, and Crystal Structure of a Pyrrolinone-Based Peptidomimetic Possessing the Conformation of a β -Strand: Potential Application to the Design of Novel Inhibitors of Proteolytic Enzymes" Amos B. Smith, III, Terence P. Keenan, Ryan C. Holcomb, Paul A. Sprengeler, Mark C. Guzman, John L. Wood, Patrick J. Carroll, and Ralph Hirschmann *J. Am. Chem. Soc.* 1992, 114, 10673.
11. "Synthesis and Rearrangement Reactions of the First *trans*-Homotropone" Amos B. Smith, III and John L. Wood *J. Am. Chem. Soc.* 1992, 114, 10075.
10. "Novel Structures of a *trans*-Cyclooctene and *trans*-Fused Cyclopropane Generated via Photoisomerization of a *gem*-Dichlorocyclopropyl Benzo-cycloheptenone" John L. Wood, Patrick J. Carroll, and Amos B. Smith, III *J. Chem. Soc., Chem. Comm.* 1992, 1433.
9. "Total Synthesis of the Cytotoxic Macrocyclic (+)-Hitachimycin" Amos B. Smith, III, Thomas A. Rano, Noritaka Chida, Gary A. Sulikowski and John L. Wood, *J. Am. Chem. Soc.* 1992, 114, 8008.
8. "(+)-Hitachimycin: Stereochemistry and Conformational Analysis" Amos B. Smith, III, John L. Wood, Carmelo J. Rizzo, George T. Furst, Patrick J. Carroll, Jerry Donohue, and Satoshi Omura *J. Am. Chem. Soc.* 1992, 114, 8003.
7. "Isolation and Structure Determination of (+)-Trienomycin F. An Endgame Synthetic Strategy for the Trienomycin Family of Antitumor Antibiotics" Amos B. Smith, III, John L. Wood, Alexandra E. Gould, Satoshi Omura, and Kanki Komiyama *Tetrahedron Lett.* 1991, 32, 1627.
6. "(+)-Mycotrienins I and II: Relative and Absolute Stereochemistry" Amos B. Smith, III and John L. Wood *Tetrahedron Lett.* 1991, 32, 841.
5. "A Versatile, Efficient Synthesis of (-)-(2*S*, 3*R*, 4*S*)-2-Amino-1-cyclohexyl-3,4-dihydroxy-6-methylheptane, The Abbott Pseudodipeptidyl Insert" John L. Wood, David R. Jones, Ralph Hirschmann, and Amos B. Smith, III *Tetrahedron Lett.* 1990, 31, 6329.
4. "Aphidicolin Synthetic Studies, 2. 2D-NMR Analysis of (+)-Aphidicolin and Its Degradation Products 3 α ,18-Dihydroxy-17-noraphidicolan-16-one and 3 α ,18-iso-propylidenedioxy-17-noraphidicolan-16-one. Complete ^1H and ^{13}C assignments" Carmelo J. Rizzo, John L. Wood, George T. Furst, and Amos B. Smith, III *J. Nat. Prod.* 1990, 53, 735.
3. "(+)-Trienomycins A, B, and C: Relative and Absolute Stereochemistry" Amos B. Smith, III, John L. Wood, Weichyun Wong, Alexandra E. Gould, Carmelo J. Rizzo, Shinji Funayama, and Satoshi Omura *J. Am. Chem. Soc.* 1990, 112, 7425.
2. "Solution and Crystal Structures of (+)-Hitachimycin (Stubomycin)" Amos B. Smith, III, John L. Wood, Carmelo J. Rizzo, George T. Furst, Patrick J. Carroll, Jerry Donohue, and Satoshi Omura *J. Org. Chem.* 1990, 55, 1133.
1. "An Efficient Photochemical Approach to the *trans*-Bicyclo[5.1.0]octene Ring System." John L. Wood, Nigel J. Liverton, Melean Visnick, and Amos B. Smith, III *J. Am. Chem. Soc.* 1989, 111, 4530.

Invited Lectures

Given

1. Mount Holyoke College (October 1993)
2. Natural Products GRC (July 1995)
3. GRC, Heterocyclic Chemistry (July 1995)
4. Eastman Kodak Inc. (July 1995)
5. Glaxo-Wellcome Raleigh NC (September 1995)
6. Merck Inc. West Point, PA (October 1995)
7. Pfizer Inc. Groton, CT (October 1995)
8. Cephalon Inc. West Chester, PA (November 1995)
9. SUNY Stony Brook (November 1995)
10. The University of Connecticut (November 1995)
11. Smith-Kline Beecham (December 1995)
12. Boehringer-Ingelheim (February 1996)
13. U. of Chicago Abbott Symposium (April 1996)
14. Eli Lilly, Indianapolis IN (May 1996)
15. GRC Reactions and Processes (July 1996)
16. NSF workshop, natural products (June 1996)
17. CUNY Hunter College (September 1996)
18. U. Mass., Dartmouth (September 1996)
19. Syracuse University (November 1996)
20. University of California, Irvine (December 1996)
21. Ciba-Geigy Corporation (January 1997)
22. Vertex Inc. (January 1997)
23. Connecticut College (February 1997)
24. U. of Illinois, Urbana-Champaign (February 1997)
25. Boston College (February 1997)
26. Wesleyan University (February 1997)
27. ACS Symp., Creativity in Synthesis (April 1997)
28. CUNY Queens College (March 1997)
29. Texas A&M University (April 1997)
30. University of Texas, Austin (April 1997)
31. Rice University (April 1997)
32. Wayne State University (April 1997)
33. University of Toledo (April 1997)
34. University of Michigan (April 1997)
35. Michigan State University (April 1997)
36. Parke-Davis, Ann Arbor, MI (April 1997)
37. University of Auckland (May 1997)
38. Waikato University (May 1997)
39. Canterbury University (May 1997)
40. Keio University (May 1997)
41. The Kitasato Institute (May 1997)
42. Tokyo University (May 1997)
43. Yamanouchi Pharmaceutical Company (May 1997)
44. Keynote Speaker 1997 NERM (June 1997)
45. Proctor and Gamble Colloquium (August 1997)
46. Merck Rahway (August 1997)
47. American Cyanamid (September 1997)
48. Wyeth-Ayerst (September 1997)
49. Sloan-Kettering (September 1997)
50. Schering-Plough Corporation (October 1997)
51. Bristol-Myers Squibb (October 1997)
52. Glaxo-Wellcome (October 1997)
53. University of Pennsylvania (October 1997)
54. Sacred Heart University (October 1997)
55. The University of Pennsylvania (October 1997)
56. Upjohn (November 1997)
57. University College London (November 1997)
58. University of Southampton (November 1997)
59. University of Glasgow (November 1997)
60. Nottingham University (November 1997)
61. Merck Harlow (November 1997)
62. Sepracor (December 1997)
63. Roche (December 1997)
64. R.W. Johnson (December 1997)
65. Dupont Ag. & DuPont Merck (January 1998)
66. Novartis, Basel (February 1998)
67. Novartis Vienna (February 1998)
68. Brandeis University (February 1998)
69. Searle (March 1998)
70. Eli Lilly (March 1998)
71. Vanderbilt University (April 1998)
72. Washington University (April 1998)
73. The University of Arizona (April 1998)
74. U. of Colorado-Synlex/Roche Symp. (May 1998)
75. Harvard University (May 1998)
76. University of Toronto (May 1998)
77. Smith-Kline Beecham (June 1998)
78. Vion Pharmaceuticals (July 1998)
79. Neurogen Corporation (July 1998)
80. The Karolinska Institute, Stockholm (October 1998)
81. Glaxo-Wellcome (October 1998)
82. Zeneca Pharmaceuticals (October 1998)
83. Boston University (October 1998)
84. New York Academy of Sciences (November 1998)
85. Bristol-Myers Squibb (November 1998)
86. University of Pittsburgh (November 1998)
87. MIT (December 1998)
88. University of Missouri (January 1999)
89. Bristol-Myers Squibb (March 1999)
90. University of Virginia (April 1999)
91. Chiral-99 (April 1999)
92. Stembach Symposium, Roche (May 1999)
93. Wyeth-Ayerst (June 1999)
94. Toyama University (November 1999)
95. 14th Annual Nozaki Conf. (Kyoto, November 1999)
96. University of California, Berkeley (October 1999)
97. Sankyo, Tokyo (January 2000)
98. RIKEN Bioprobes Conf., Tokyo (January 2000)
99. Yamanouchi, Tskuba (January 2000)
100. Chiba University, Japan (January 2000)
101. Caltech (January 2000)
102. USC (January 2000)
103. University of Rochester (February 2000)
104. Albany Molecular Research Inst. (March 2000)
105. Rensselaer Polytechnic Institute (March 2000)
106. Indiana University (April 2000)
107. Eli Lilly (April 2000)
108. Heterocycles Gordon Conference (July 2000)
109. Princeton Symposium (September 2000)
110. RW Johnson (October 2000)
111. Manhattan College (October 2000)
112. University of Montreal (November 2000)
113. Pacificchem 2000 (December 2000)
114. Array Biopharma (December 2000)
115. Scripps (February 2001)
116. University of Utah (March 2001)
117. University of Wisconsin (March 2001)
118. North Jersey Symposium (April 2001)
119. Merck West Point (September 2001)
120. Dow Agrochemical (October 2001)
121. University of Chicago (October 2001)
122. Tishler Symposium, Tokyo (November 2001)
123. Sankyo Pharmaceuticals (November 2001)
124. Sepracor Symposium (March 2002)
125. Caltech (March 2002)
126. Chinese Academy of Sciences, Beijing (April 2002)

Pending

- Locus Pharmaceuticals (May 2002)
Abbott (May 2002)